

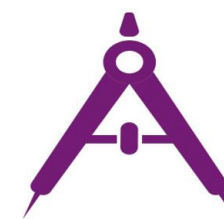
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«Metrological Support of Innovative Technologies» ICMSIT-2020

Concept of a new method for continuous non-destructive control of asphalt road pavements compaction

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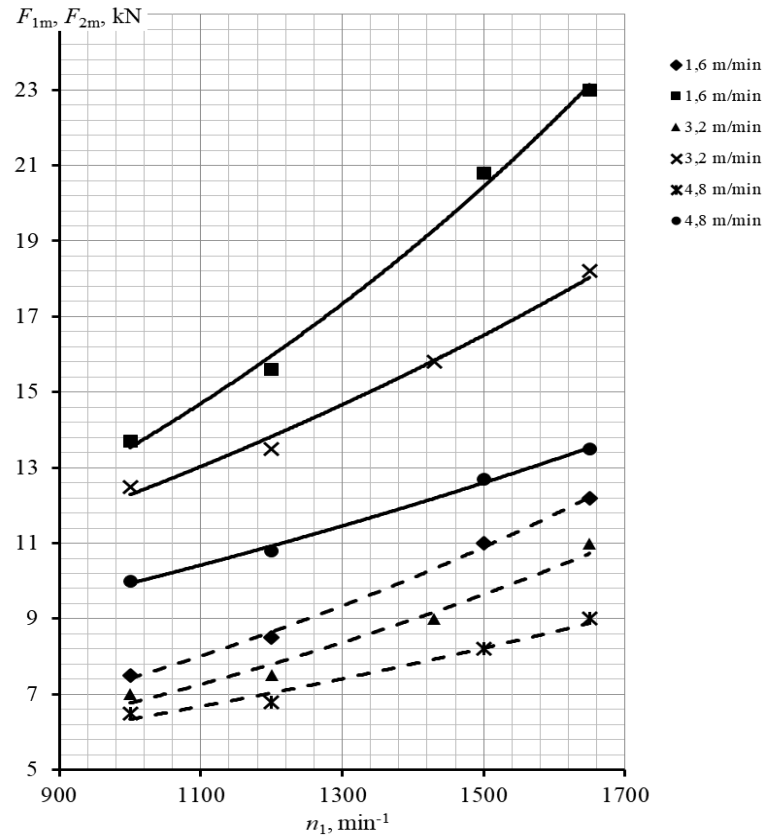
Problem statement

- The concept of a new method for continuous non-destructive testing of asphalt concrete pavement compaction based on the analysis of the vibration and force state of road construction machinery working bodies and the corresponding algorithm for data conversion and compaction quality intelligent prediction

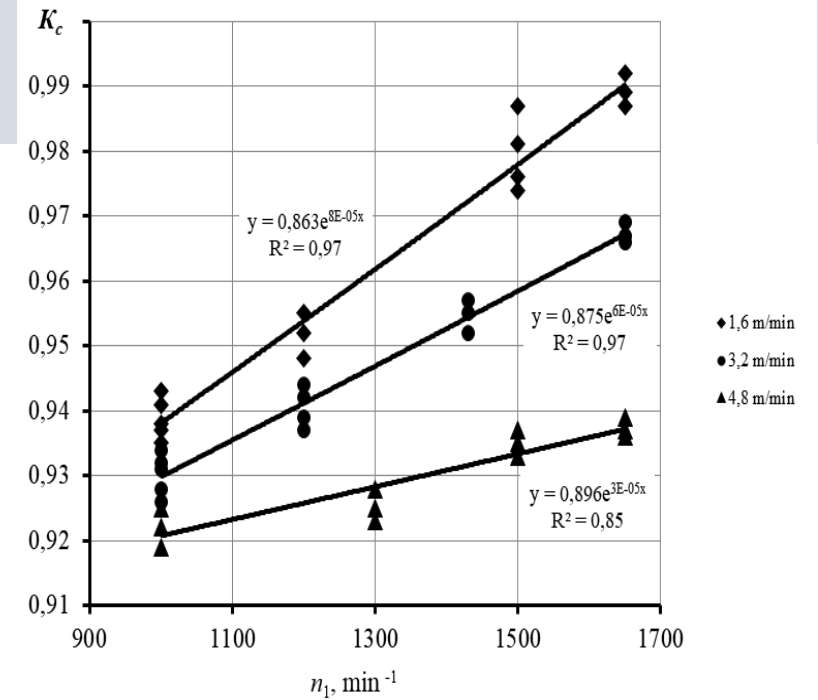
Solution methods

- Results of experimental studies of a paver with an effective working body (two tampers and smoothing plate) in real road construction condition

Relationship of the maximum forces from the rotation frequency eccentric shaft



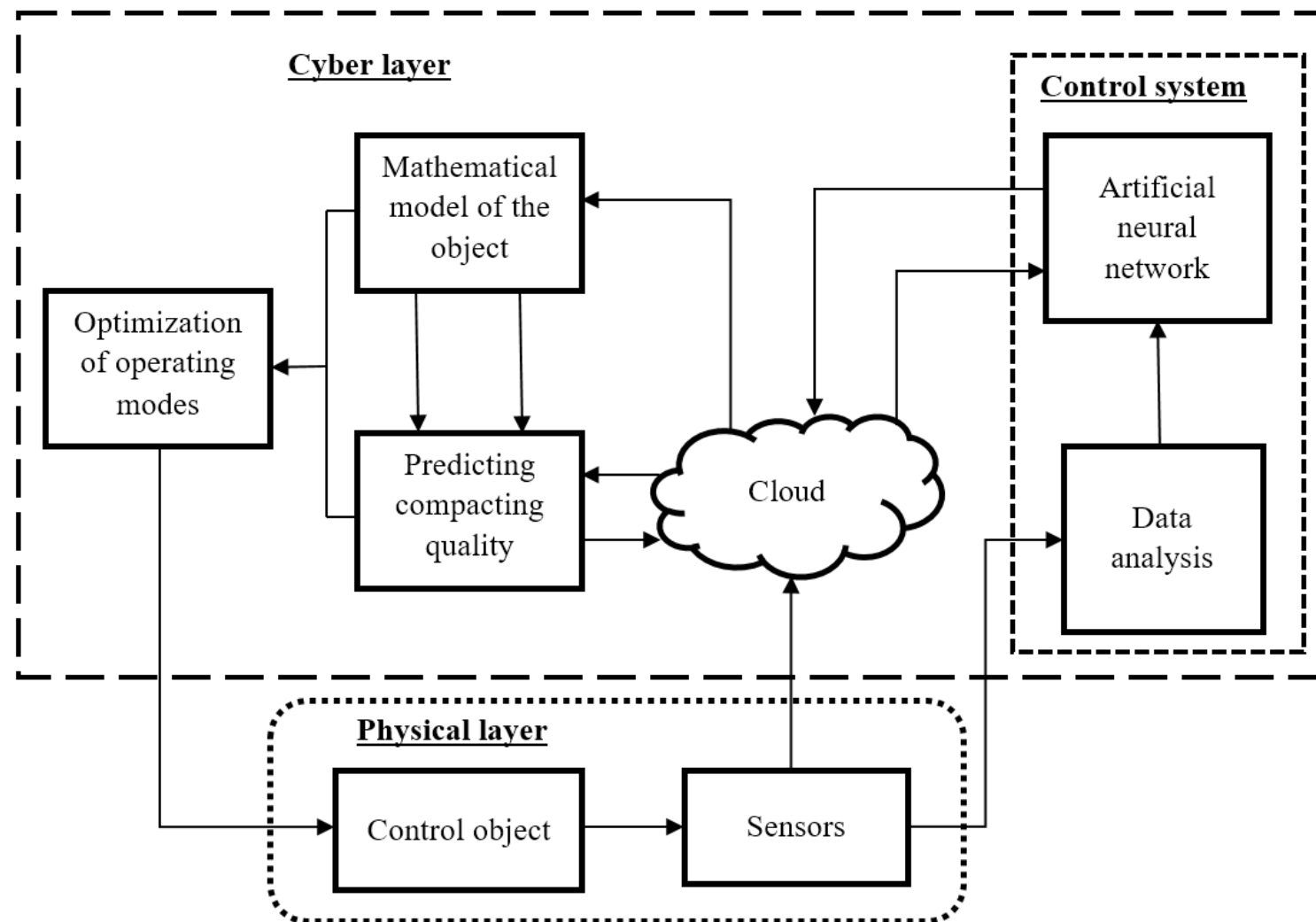
Relationship of the mix compaction coefficient from the rotation frequency eccentric shaft



Solution
methods

Conclusions

- **Cyber-physical system for continuous control compaction of the asphalt mixture**



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